## Constraints

The following are the constraints:

* The project must be completed within the budget
* The project must be completed within a specified period of time.
* The system should be up 24/7.
* The system should enforce user authentication security and guarantee reliability.

**3. Flow Chart**

* **About Us**
* **Principles and objectives**

**Illness insurance**

* **Health protection and prevention from getting ill.**
* **Medical treatment in a non - hospital institutions Company Structure**
* **Dental treatment**
* **Medical treatment in a hospital institution**
* **Services that have connection with conditions of life or other additional conditions**
* **Expenses reimburse.**

**Financial insurances**

**Luggage while transporting insurance**

**KASKO insurance**

**Assistance when travelling abroad**

**Property insurance**

* **First risk insurance**
* **Safe house insurance**
* **Fire and other risks insurance**
* **Industrial fire insurance**

**Agricultural insurances**

* **Agricultural cultures insurances**
* **Animal insurances**

**Accident insurance**

* **Common accident**
* **Hotel guests accident**
* **Students accident**
* **Credit taker accident**
* **Vehicle seats accident**
* **Sportsman accident**
* **Tourists accident**
* **Accident connected with foreigners in Bulgaria**
* **Accident at work**

**Medical institutions**

* **Labs**
* **Medical centers**
* **Hospitals**

**Forms**

**Services**

* **Trusted services**
* **Official services**
* **FAQ**
* **Useful advices**
* **Rules for claim settling**
* **Status check**
* **News from the insurance company**
* **Health calendar**
* **Add insured person**
* **Edit insured person**
* **Add medical institutions**
* **Edit medical institutions**
* **Add damages**
* **Edit damages**

**Legend:**

**Valid options for both user and client.**

**Valid options for client only.**

**Valid options for admin only.**

Specific Requirements

## Product Functions

The insurance company website should support the following use cases:

|  |  |  |  |
| --- | --- | --- | --- |
| CASE TYPE | № | USE CASE | DESCRIPTION OF THE USE CASE |
| Illness insurance case type | 1 | *Health protection and prevention from getting ill* | *Display all the necessary information about this insurance package* |
| 2 | *Medical treatment in a non-hospital institutions* | *Display all the necessary information about this insurance package* |
| 3 | *Dental treatment* | *Display all the necessary information about this insurance package* |
| 4 | *Medical treatment in a hospital institution* | *Display all the necessary information about this insurance package* |
| 5 | *Services that have connection with conditions of life or other additional conditions.* | *Display all the necessary information about this insurance package* |
| 6 | *Expenses reimburse* | *Display all the necessary information about this insurance package* |
| Online illness insurance case type | 7 | *Online Illness insurance* | *Display all the necessary information about this insurance package. Give a three steps option to sign an online illness insurance package* |
| Clients case type | 8 | *Enter for status check* | *Log in the insurance company system* |

**4.2. Functional requirements**

**4.2.1. Use cases related to the main products, offered by the insurance company.**

4.2.1.1. Use case *Illness insurance*

*Primary Actor*: User

*Pre Condition*: User loads the zknadejda.bg homepage

*Main scenario*:

1. User initiates the “Illness insurance” functionality from “Products” option in the main menu.
2. A new section is opened with information about the company’s insurance policy
3. At the bottom of the page in a single column are situated some documents with option to download.
4. On the right hand side of the webpage are listed in a single column the main products of the company
5. Under the list with the main products, on the bottom right hand corner there are two options to choose:

* Find partner
* Status check

4.2.1.2.Subcase *Health protection and prevention from getting ill.*

*Primary Actor*: User  
 *Pre Condition*: User loads the zknadejda.bg homepage and initiates the “Products” option in the main menu (positioned just under the insurance company logo)  
 *Main scenario*:

1. User initiates the “*Health protection and prevention from getting ill*” functionality from “*Illness insurance*” option in the “Products” menu.
2. A new section is opened, containing information about “*Health protection and prevention from getting ill*” insurance package.

4.2.1.3.Subcase *Medical treatment in a non - hospital institutions*

*Primary Actor*: User  
 *Pre Condition*: User loads the zknadejda.bg homepage and initiates the “Products” option in the main menu (positioned just under the insurance company logo)  
 *Main scenario*:

1. User initiates the “Medical treatment in a non-hospital institutions” functionality from “Illness insurance” option in the “Products” menu.
2. A new section is opened, containing information about “Medical treatment in a non-hospital institutions” insurance package.

4.2.1.4.Subcase *Dental treatment*

*Primary Actor*: User  
 *Pre Condition*: User loads the zknadejda.bg homepage and initiates the “Products” option in the main menu (positioned just under the insurance company logo)  
 *Main scenario*:

1. User initiates the “Dental treatment” functionality from “Illness insurance” option in the “Products” menu.
2. A new section is opened, containing information about “Dental treatment” insurance package.

4.2.1.5.Subcase *Medical treatment in a hospital institution*

*Primary Actor*: User  
 *Pre Condition*: User loads the zknadejda.bg homepage and initiates the “Products” option in the main menu( positioned just under the insurance company logo )  
 *Main scenario*:

1. User initiates the “Medical treatment in a hospital institution” functionality from “Illness insurance” option in the “Products” menu.
2. A new section is opened, containing information about “Medical treatment in a hospital institution” insurance package.

4.2.1.6**.** Subcase *Services that have connection with conditions of life or other additional conditions.*

*Primary Actor*: User  
 *Pre Condition*: User loads the zknadejda.bg homepage and initiates the “Products” option in the main menu( positioned just under the insurance company logo )  
 *Main scenario*:

1. User initiates the “ Services that have connection with conditions of life or other additional conditions ” functionality from “Illness insurance” option in the “Products” menu.
2. A new section is opened, containing information about “ Services that have connection with conditions of life or other additional conditions ” insurance package.

4.2.1.7.Subcase *Expenses reimburse.*

*Primary Actor*: User  
 *Pre Condition*: User loads the zknadejda.bg homepage and initiates the “Products” option in the main menu( positioned just under the insurance company logo )  
 *Main scenario*:

1. User initiates the “Expenses reimburse” functionality from “Illness insurance” option in the “Products” menu.
2. A new section is opened, containing information about “Expenses reimburse” insurance package.

**4.2.2. Use cases related to online insurance.**

4.2.2.1Use case *Online insurance*

*Primary Actor*: User  
 *Pre Condition*: User loads the zknadejda.bg homepage

*Main scenario*:

1. User initiates the “Online insurance” functionality in the main menu( positioned just under the insurance company logo )
2. A new section is opened, containing options to sign an online insurance contract for *Accident insurance*, *Illness insurance* and *Property insurance.*

4.2.2.2.Subcase *Illness insurance*

*Primary Actor*: User  
 *Pre Condition*: User loads the zknadejda.bg homepage and choose *Online insurance* from the main menu. User should have installed PDF Viewer

*Main scenario*:

1. User initiates the *Illness insurance* functionality
2. A new section is opened, where in three steps you can choose what particular insurance you want to sign.
3. On the first step user chooses the level of coverage. Next to the level options there’s a link to a pdf file with information about all the coverages.
4. On the second step a detailed information is displayed about the chosen level of coverage
5. On the third step you have five blank fields to enter your three names, email, phone number, ID number, address.
6. User cannot continue forward before fill all the blank fields
7. A valid email should have a “@“ sign in it and a domain.
8. To continue forward the user should mark as “checked” the box where he is agreed his personal data to be used by the insurance company

*Alternative scenario*:

1. If a field is left blank then an error message is displayed “Please enter your ………/field name/.
2. If an invalid email is entered – without @ sign an error message is displayed “Your email seems invalid. Please check for @”.
3. If an email is entered without domain an error message is displayed – “Your email is missing hosting”

**4.3 Test Cases**

**4.3.1 Test case about correctly filled blank fields at the second step of online insurance**

*Primary Actor*: User  
 *Pre Condition*: User loads the zknadejda.bg homepage

*Main scenario*:

1. User initiates the “Online insurance” functionality in the main menu( positioned just under the insurance company logo )
2. A new section is opened, containing options to sign an online insurance contract for *Accident insurance*, *Illness insurance* and *Property insurance.* User choose Illness insurance and then choose some of the coverage levels.
3. Enters Ivan Ivanov Ivanov for three names
4. [Ivanov@yahoo.com](mailto:Ivanov@yahoo.com) for email
5. 0888888888 for phone number
6. 8812126789 for ID number
7. Sofia city, “Nicola Vaptzarov” blvd 1.
8. Choose if he is paying through the bank or not
9. Checks that he is agreed his personal data to be used by the insrance company

Expected result: Continues to the next step

**4.3.2 Test case about incorrect email /without hosting/ at the second step of online insurance**

*Primary Actor*: User  
 *Pre Condition*: User loads the zknadejda.bg homepage

*Main scenario*:

1. User initiates the “Online insurance” functionality in the main menu( positioned just under the insurance company logo )
2. A new section is opened, containing options to sign an online insurance contract for *Accident insurance*, *Illness insurance* and *Property insurance.* User choose Illness insurance and then choose some of the coverage levels.
3. Enters Ivan Ivanov Ivanov for three names
4. [Ivanov@](mailto:Ivanov@yahoo.com) for email
5. 0888888888 for phone number
6. 8812126789 for ID number
7. Sofia city, “Nicola Vaptzarov” blvd 1.
8. Choose if he is paying through the bank or not
9. Checks that he is agreed his personal data to be used by the insrance company

Expected result: An error message is displayed with text “A hosting is missing in the address”

**4.3.3 Test case about correctly filled blank fields at the second step of online insurance**

*Primary Actor*: User  
 *Pre Condition*: User loads the zknadejda.bg homepage

*Main scenario*:

1. User initiates the “Online insurance” functionality in the main menu( positioned just under the insurance company logo )
2. A new section is opened, containing options to sign an online insurance contract for *Accident insurance*, *Illness insurance* and *Property insurance.* User choose Illness insurance and then choose some of the coverage levels.
3. Enters Ivan Ivanov Ivanov for three names
4. [Ivanov@yahoo.com](mailto:Ivanov@yahoo.com) for email
5. The field with the phone number is left blank
6. 8812126789 for ID number
7. Sofia city, “Nicola Vaptzarov” blvd 1.
8. Choose if he is paying through the bank or not
9. Checks that he is agreed his personal data to be used by the insrance company

Expected result: An error message is displayed with text “Please enter a phone number to contact with you”

**4.4 Reliability**

Reliability is an important factor to make “Nadezhda” insurance company website trustable. Some issues should be considered as following:

**4.4.1 Availability:**

The website should be available 24 hours per day, 7 days per week. Maintenance access period is a month. Database is backed up.

**4.4.2 Mean Time Between Failures (MTBF):**

3 month.

**4.4.3 Mean Time to Repair (MTTR):**

2 hours

**4.4.4 Maximum Bugs or Defect Rate:**

Less than 1 minor bug per 1000 lines of code.

**4.4.5 Bugs or Defect Rate:**

No critical bug that causes data loss or system crash is allowed.

**4.5 Performance**

**4.5.1 The information retrieval should be as fast as possible for customer satisfaction.**

To ensure this, the consumer should be able to download a page in 5 seconds with a 33.6 Kbps modem. The form submission should not take a long time to be processed, especially in the insurance company case, in which form applications play a major role.

**4.5.2 The server should be able to serve 25 percent of registered customers**

The server should be able to serve 25 percent of registered customers simultaneously, which may be about several thousand for a medium scaled electronic enterprise.

**4.5.3 Separation of connection handling and data processing**

Separation of connection handling and data processing would definitely improve the overall system performance as well as cost incurred.

**4.5.4 Software runs on an online platform**

Slow data retrieval because of poor programming must be absolutely discarded since the software runs on an online platform.

**4.5.5 Minimize the data transfer time**

The size of data sent to the user can be limited to an upper bound, especially for the multimedia files, to minimize the data transfer time.

**4.5.6 Size of the secondary storage**

The larger the primary memory, the faster the applications would run. Moreover the size of the secondary storage should be sufficient for data swapping, recovery and backup procedures.

**4.6 Supportability**

**4.6.1 Compatible with Operating Systems**

• Windows

**4.6.2 Compatible with Browsers**

• Microsoft Internet Explorer

• Mozilla Firefox

• Google Chrome

• Opera

• Safari

**4.7 Licensing Requirements**

Not Applicable